

**Abstract of the Disclosure**

A phototransistor comprises an emitter comprising antimony, a base comprising antimony, and a collector comprising antimony. Preferably, the emitter, the base and the collector each comprise at least one of AlInGaAsSb, AlGaAsSb, AlGaSb, GaSb and InGaAsSb. The base comprises an emitter-contacting portion which is in contact with a base-contacting portion of the emitter. The collector comprises a base-contacting portion which is in contact with a collector-contacting portion of the base. The phototransistor produces an internal gain upon being contacted with light within a receivable wavelength range, preferably greater than 1.7 micrometers. Also, a method of making such a phototransistor, and a method of detecting light using such a phototransistor.